

DUAL LAYER BARRIER FILM TECHNIQUES TO PREVENT RESIST POISONING

ABSTRACT OF THE DISCLOSURE

Provided is a process for forming a barrier film to prevent resist poisoning in a
5 semiconductor device by depositing a second nitrogen-free barrier layer on top of a
first barrier layer containing nitrogen. A low-k dielectric layer is formed over the
second barrier layer. This technique maintains the low electrical leakage
characteristics of the first barrier layer and reduces nitrogen poisoning of a photoresist
layer subsequently applied.

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